## **ABSTRACT**

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nvention provides recombinant plasmids coding in DNA sequences for human containing invention further preproparathyroid hormone. The E. microorganisms, for example coli, provides transformed by these plasmids. The invention also provides a plasmid for insertion into yeast and a transformed yeast in which the plasmid contains DNA coding for parathyroid hormone. Parathyroid hormone is then secreted by the transformed yeast. Further the provides alternate polypeptides invention parathyroid hormone activity, including PTH analogs, fragments and extensions, and provides alternate leader sequences and secretion signal sequences which can be used in the present invention. Finally, there are provided methods for purification of the secreted PTH hormone and/or derivatives.